I claim:

1. A clamping device for elongated workpieces to be acted upon by a machine tool, comprising a vertically movable, vertically arranged supporting plate having at least one horizontal thoroughgoing opening and an adjustable first workpiece clamping unit located in front of one of the openings.

2. The clamping device according to claim 1, further comprising means for slideably guiding the supporting plate, and a drive for adjusting a height of the throughgoing openings to a working level of a workpiece, the drive comprising a pushing bar connected to the supporting plate.

3. The clamping device according to claim 1, wherein the first clamping unit has pneumatically operated and self-centering jaws.

4. The clamping device according to claim 3, wherein the first clamping unit has a first clamping ring coupled to a first opposed pair of clamping jaws and a second clamping ring coupled to a second opposed pair of clamping jaws.

5. The clamping device according to claim 4, wherein the first and second opposed pairs of clamping jaws are orthogonal to each other.

6. The clamping device according to claim 4, further comprising at least one cylinder having a piston coupled to one of the first and second clamping rings.

7. The clamping device according to claim 6 wherein the piston is a double piston.

8. The clamping device according to claim 6 wherein at least one cylinder is mounted to a chuck body.

9. The clamping device according to claim 4, further comprising a base jaw associated with each clamping jaw, each base jaw having wedge surfaces, and a roller bearing against the wedge surfaces to transform rotational motion of a clamping ring into orthogonal clamping motion for the associated clamping jaw.

10. The clamping device according to claim 9 wherein a base jaw is provided on a front side with a fastening groove and two rows of toothing.

11. The clamping device to claim 1 further comprising compressed air channels which open into flanges coupled to cylinders of the first clamping unit, and that the first clamping unit is provided with a drive for rotation through an angle of at least 360°.

12. The clamping device according to claim 1, further comprising a second clamping unit arranged on a base of the machine tool, and means associated with the second clamping device to position the second clamping device in a non-conflicting position when the first clamping device is in operation.

13. The machine tool according to claim 1, wherein the second clamping unit has jaws with spherical segments on clamping faces.